



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,413	11/13/2001	Kiyoshi Hayashi	10873.836US01	2962
23552	7590	08/18/2004		
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903				
			EXAMINER MÉRCAÑO, JULIAN A	
			ART UNIT 1745	PAPER NUMBER

DATE MAILED: 08/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

VV

<b>Office Action Summary</b>	Application No. 10/008,413	Applicant(s) HAYASHI ET AL.	
	Examiner Julian Mercado	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 June 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 6, 7, 13, 14 and 21-25 is/are pending in the application.
- 4a) Of the above claim(s) 13 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6, 7, 21-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Remarks***

This Office action is responsive to applicant's amendment filed June 2, 2004.

Claims 1-5, 8-12 and 15-20 have been canceled. Claims 6, 7, 13, 14 and 21-25 are pending, of which claims 24 and 25 are newly submitted.

### ***Election/Restrictions***

Applicant's election of Group II, claims 1-7 and 15-23 in the June 2, 2004 amendment is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 13 and 14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made without traverse for the reasons stated in the immediately preceding paragraph.

### ***Claim Rejections - 35 USC § 102 and 103***

The rejection of claims 1-4 under 35 U.S.C. 102(e) based on Maeda et al. and claims 15-20 under 35 U.S.C. 103(a) based on Maeda et al., Mori et al. and Bernard et al., are deemed moot in view of the cancellation of these claims.

Art Unit: 1745

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 7, 24 and 25 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Maeda et al.

Claims 21-23 are rejected under 35 U.S.C. 103(a) as obvious over Maeda et al. as applied to claims 6, 7, 24 and 25 above, in view of Mori et al. (U.S. Pat. 5,393,616) and Bernard et al. (U.S. Pat. 5,993,995)

The rejections are maintained for the reasons of record. As applicant has not amended the scope of the present claims, the examiner's response to each of applicant's salient arguments here follows. The examiner notes that no specific arguments against Mori et al. and Bernard et al. in combination with Maeda et al. were submitted. The focus of applicant's arguments were directed against Maeda et al., to which the examiner responds as follows.

The prior Office action set forth that Maeda et al. teaches a cobalt compound for use in an alkaline battery comprising cobalt hydroxide powder having an average diameter of 30  $\mu\text{m}$ . (col.

Art Unit: 1745

9 line 38-45) Claim 6, which is the sole independent claim, is in product-by-process format. To this extent, the claimed product is maintained as appearing to be the same or similar to the prior art product insofar as being a cobalt compound including cobalt hydroxide and sodium hydroxide powders.

As a matter of clarification, it is the examiner's belief and understanding that a portion of Maeda et al. is improperly stated, correction of which is critical in fully understanding Maeda et al.'s disclosure. In col. 4 at line 52-54, the portion of the text reciting "high-conductivity cobalt oxyhydroxide having a conductivity improved to 15  $\Omega$ -cm or" is believed to actually disclose --high-conductivity cobalt oxyhydroxide having a *resistivity* improved to 15  $\Omega$ -cm or less--. (emphasis added) The basis for the examiner's correction is per convention; resistivity units are in  $\Omega$ -cm, while conductivity units are the reciprocal thereof as  $\Omega$ -cm<sup>-1</sup>. Maeda et al. is clearly advocating high-conductivity. (see col. 4 line 34) Thus, the disclosure of Maeda et al. is drawn towards achieving a *resistivity* improved to 15  $\Omega$ -cm or less. (note: a low resistivity would coincide with a high conductivity)

Applicant is correct in converting a resistivity of 15  $\Omega$ -cm disclosed by Maeda et al. to a conductivity of 0.07  $\Omega$ -cm<sup>-1</sup>. Applicant appears to be relying on the experimental data present in the specification, wherein Example 3 corresponds to the scope of claim 6. Applicant submits that the product of claim 6 is characterized by high crystallinity, low conductivity and low solubility, while Maeda et al. is purported to show an amorphous, high conductivity product. Maeda et al.'s conductivity of 15  $\Omega$ -cm is higher than the disclosed conductivity of  $1.0 \times 10^{-5}$   $\Omega$ -cm<sup>-1</sup>, i.e. three orders of magnitude higher. Ergo, applicant submits that the product in Maeda et al. has no basis for being similar to that of claim 6.

However, while this argument may have merit, the scope of the present claims do not positively recite the conductivity of the material. Maeda et al. is maintained to teach the claimed invention insofar as being a cobalt compound including cobalt hydroxide and sodium hydroxide powders baked in an atmosphere containing oxygen within a temperature range of 80° C to 120° C. Maeda et al. therefore anticipates claim 6 to the extent that a baking temperature range of 80° C to 120° C overlaps with the claimed 90° C to 140° C. Applicant's showing of any differences between Maeda et al.'s product and the claimed product does not appear to be based on a baking temperature of between 120° C and 140° C, i.e. outside the prior art's anticipatory range. Notwithstanding, it is within this temperature range of between 120° C and 140° C, and for that matter between 80° to 90° C, that should any differences be shown by the product of the product-by-process claim, such differences would have been obvious to the skilled artisan as a routine modification of the product absent of a showing of unexpected results. *In re Thorpe*, 227 USPQ 964 (Fed. Cir. 1985).

Regarding new claims 24 and 25, as to the claimed solubility in potassium hydroxide solution, as the cobalt hydroxide in Maeda et al. appears to be the same or similar to that disclosed and claimed by applicant for the reasons discussed above, it would naturally flow to inherently have the same solubility as claimed, absent of a showing by applicant that the claimed invention distinguishes over the reference. *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977) and *In re Spada*, 15 USPQ 2d 1655 (Fed. Cir. 1990)

Applicant's request for retainment of claims 13 and 14 has been fully considered, however, since retainment of claims 13 and 14 is based on the premise that the corresponding

product claims would be found allowable, claims 13 and 14 are maintained withdrawn from consideration for the reasons set forth in the prior Office action.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Art Unit: 1745

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

A handwritten signature, possibly 'jam', is written inside a large, hand-drawn oval. The word 'jam' is printed in a small, lowercase font directly beneath the signature.

A handwritten signature, likely 'Patrick Ryan', is written above the printed name.

Patrick Ryan  
Supervisory Patent Examiner  
Technology Center 1700